

CLAIMS

What is claimed is:

1. A storable, hydraulically-active, cementitious slurry comprising:
 - a hydraulically-active cementitious material suitable for cementing within 5 subterranean formations for oil or gas wells;
 - a suspending agent; and
 - boric acid

wherein the amount of boric acid in the cementitious slurry is between from about 1 to about 6 percent by weight.

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2. The storable, hydraulically-active, cementitious slurry of Claim 1, wherein the suspending agent is iota carrageenan.

3. The storable, hydraulically-active, cementitious slurry of Claim 1, wherein 15 the suspending agent comprises poly (methyl vinyl ether/maleic anhydride) decadiene copolymer.

4. The storable, hydraulically-active, cementitious slurry of Claim 1, wherein the hydraulically-active cementitious material is Portland cement.

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5. The storable, hydraulically-active, cementitious slurry of Claim 1, which further comprises a dispersing agent.

6. A storable, hydraulically-active, cementitious slurry comprising:
 - a hydraulically-active cementitious material suitable for cementing within 25 subterranean formations for oil or gas wells;
 - a suspending agent; and
 - boric acid

- wherein the amount of boric acid in the cementitious slurry is sufficient to lower the pH 30 of the storable cementitious slurry to at least 12.0.

7. The storable, hydraulically-active, cementitious slurry of Claim 6, wherein the amount of boric acid in the cementitious slurry is sufficient to lower the pH of the storable cementitious slurry to at least 11.0.

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8. The storable, hydraulically-active, cementitious slurry of Claim 7, wherein the slurry contains boric acid in an amount sufficient to lower the pH to at least 10.0.

9. The storable, hydraulically-active, cementitious slurry of Claim 8, wherein
10 the slurry contains boric acid in an amount sufficient to lower the pH to at least 9.0.

10. The storable, hydraulically-active, cementitious slurry of Claim 9, wherein the slurry contains boric acid in an amount sufficient to lower the pH to at least 8.0.

15 11. The storable, hydraulically-active, cementitious slurry of Claim 10, wherein the slurry contains boric acid in an amount sufficient to lower the pH to at least 7.0.

12. The storable, hydraulically-active, cementitious slurry of Claim 10,
20 wherein the slurry contains boric acid in an amount sufficient to lower the pH to at least 6.0.

13. The storable, hydraulically-active, cementitious slurry of Claim 7, wherein
the suspending agent is iota carrageenan.

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14. The storable, hydraulically-active, cementitious slurry of Claim 7, wherein the suspending agent comprises poly (methyl vinyl ether/maleic anhydride) decadiene copolymer.

30 15. The storable, hydraulically-active, cementitious slurry of Claim 6, wherein the hydraulically-active cementitious material is Portland cement.

16. The storable, hydraulically-active, cementitious slurry of Claim 7, which further comprises a dispersing agent.

5 17. A method of cementing within a subterranean formation for an oil or gas well, the method comprising the steps of:

formulating a storable, hydraulically-active, cementitious slurry by mixing together a hydraulically-active cementitious material of a type suitable for cementing within subterranean formations for oil or gas wells, a suspending agent and boric acid,
10 wherein the pH of the cementitious slurry is between from about 6.0 to about 12.0;

storing the storable slurry until required for cementing;

activating the storable slurry;

pumping the activated slurry into the subterranean formation; and

allowing the activated slurry to set.

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18. The method of Claim 17, wherein the pH of the cementitious slurry is between from about 6.0 to about 11.0.

19. The method of Claim 18, wherein the pH of the cementitious slurry is
20 between from about 7.0 to about 10.0.

20. The method of Claim 18, wherein the suspending agent is iota carageenan.

25 21. The method of Claim 18, wherein the suspending agent comprises poly (methyl vinyl ether/maleic anhydride) decadiene copolymer.

22. The method of Claim 17, wherein the hydraulically-active cementitious material is Portland cement.

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23. The method of Claim 18, which further comprises a dispersing agent.

24. A method of cementing within a subterranean formation for an oil or gas well, the method comprising the steps of:

formulating a storable, hydraulically-active, cementitious slurry by mixing 5 together a hydraulically-active cementitious material of a type suitable for cementing within subterranean formations for oil or gas wells, a suspending agent and boric acid, wherein the amount of boric acid in the cementitious slurry is between from about 1.0 to about 6.0 weight percent of the cementitious slurry;

10 storing the storable slurry until required for cementing;

activating the storable slurry;

pumping the activated slurry into the subterranean formation; and

allowing the activated slurry to set.

25. The method of Claim 24, wherein the storable slurry contains boric acid in 15 an amount sufficient to lower the pH to at least 11.0.

26. The method of Claim 25, wherein the storable slurry contains boric acid in an amount sufficient to lower the pH to at least 10.0.

20 27. The method of Claim 26, wherein the slurry contains boric acid in an amount sufficient to lower the pH to at least 9.0.

28. The method of Claim 27, wherein the storable slurry contains boric acid in an amount sufficient to lower the pH to at least 8.0.

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29. The method of Claim 28, wherein the slurry contains boric acid in an amount sufficient to lower the pH to at least 7.0.

30. The method of Claim 29, wherein the slurry contains boric acid in an 30 amount sufficient to lower the pH to at least 6.0.

31. The method of Claim 25, wherein the suspending agent is iota carrageenan.

32. The method of Claim 25, wherein the slurry is activated by adding thereto
5 an activator.

33. The method of Claim 32, wherein the activator is an alkali halide, ammonium halide, KF, dibasic alkali phosphate, tribasic alkali phosphate, ammonium fluoride, tribasic ammonium phosphate, dibasic ammonium phosphate, ammonium 10 bifluoride, sodium fluoride, a triethanolamine, an alkali silicate or an alkali carbonate.

34. The method of Claim 33, wherein the activator is KF, dibasic potassium phosphate, tribasic potassium phosphate, ammonium fluoride, ammonium bifluoride, tribasic ammonium phosphate, dibasic ammonium phosphate, sodium fluoride, a 15 triethanolamine, an alkali silicate or an alkali carbonate.

35. The method of Claim 24, wherein the suspending agent comprises poly (methyl vinyl ether/maleic anhydride) decadiene copolymer.

20 36. The method of Claim 24, wherein the hydraulically-active cementitious material is Portland cement

37. The method of Claim 24, wherein the storable slurry further comprises a dispersing agent.

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38. A method of cementing within a subterranean formation for an oil or gas well, the method comprising the steps of:

formulating a storable, hydraulically-active, cementitious material by mixing together Portland cement, a suspending agent and boric acid wherein the amount of boric 30 acid in the cementitious material is between from about 1.0 to about 6.0 weight percent;

- storing the storable slurry, until required for cementing, at a pH between from about 6.0 to about 12.0;
- activating the storable slurry;
- pumping the activated slurry into the subterranean formation; and
- 5 allowing the activated slurry to set.

39. The method of Claim 38, wherein the pH of the storable slurry is between from about 6.0 to about 11.0.